RCA Amateur Radio Club
Indianapolis, IN
www.w9rca.org

JULY, 2021 MONTHLY NEWSLETTER

A VIRTUAL ZOOM MEETING WILL BE SCHEDULED FOR
TUESDAY JULY 13th AT 7:00 EDT
INVITATIONS TO JOIN WILL BE EMAILED JULY 12th

RCA ARC NEWS

THE JULY 13h MEETING – For the July 13th meeting, we shall again use a Zoom virtual meeting. The meeting will start at 7:00 pm. You will receive an email message with a link, meeting ID and password by July 12th .

If you can access your emails by your smart phone, then you can join using it. If you join using your desktop or laptop and do not have a video camera, then it will join you with audio only assuming you have some type of microphone connected to the computer. If not, then you will be logged as listen only. You can also use your phone and call in using the numbers listed in the email for the session.

The August meeting will be Aug. 10 and will be an in-person meeting at our previous location, the venue which was previously The Knights of Columbus.

SUMMARY OF JUNE MEETING SUMMARY – Thanks to all who attended our June Zoom meeting. Our Club ordered ten tables at the Indy Hamfest. Six of these are for the Club. The remainder are for individual members. K9RU reports we have a log of junk to sell so we'll need as much help as possible loading, hauling, and manning the tables on Friday and Saturday. July 9 and 10 are the dates. See **http://Indyhamfest.com/** The Field Day plans are coming together. Our Club will be responsible for the six meter station and antenna as well as one of the generators. Jim, K9RU, reported the W9RCA repeater remote receiver antenna on the Ivy Tech building may be broken. He's going to get a better look with binoculars. The FCC new license feed have not yet been implemented. Remember the coming VHF contest.

AMATEUR RADIO LICENSE TEST SESSION
No testing this month because of the Indianaolis Hamfest on July 9-10

HELP NEEDED MOVING THE STUFF TO THE HAMFEST AND AT THE RCA TABLES AT THE HAMFEST – We need help loading and moving the stuff from K9RU's QTH to the Hamfest.

Anyone that has a vehicle that can haul some stuff would be a big help as we have a lot of stuff.
The plan is to meet at K9RU, Jim Rinehart's home to load the stuff, 1455 Shannon Ave., Indianapolis, IN at **9:00 AM Friday.**

If you can help out let Jim know: k9ru@arrl.net Ph: 317 721-1458 or call on the W9RCA repeater, 146.88 MHz, tone 88.5.

We need help manning the tables a the Hamfest both Friday afternoon and Saturday so if you could help out for an hour or more it would be great. – Jim K9RU

INDY UNITED W9SU / W9RCA FIELD DAY – The RCA ARC participated with the Indy United club again this. It is made up of operators and clubs in the Indianapolis area.

It was a 3A operation with two CW stations on HF and one SSB plus a VHF station and a GOTA station, W9RCA.

This was a large setup with two trailers for the CW stations, the HF and VHF stations were located in the club house and GOTA in the shelter.

The weather was predicted to be a washout, but it was sunny and hot Friday for setup and Saturday and Sunday for Field day. The rain held off till 3 PM Sunday and we had most of the tear down completed.

We had one of the largest turnouts with more than 54 people showing up and a large turn out to operate the GOTA station.

We had the normal glitches with the computers and the internet WiFi setup and one of K3s was having problems.

A final score has not been given for the QSOs or points yet but it looks like we did very good, maybe better than last year.

The RCA ARC was responsible for the setup and operation of the VHF station. Most of it was done on FT8. AF9A copied the ARRL FD message plus his Honda generator and gas for the HF phone and VHF station power.

RCA ARC had a good showing with: Jim Keeth AF9A, Dick Davis W9ZB, John Garino KF9UH, Greg Holbrook K0GAH and his son Jim who operated the GOTA station.

Link to pictures: https://photos.app.goo.gl/MM2GCq58paJwTQmM7 --- Jim K9RU

WISA WOODSAT SUCCESSFULLY COMPLETES STRATOSPHERIC TEST FLIGHT

The world's first wooden CubeSat successfully completed a test flight into the stratosphere in June. WISA Woodsat is constructed using birch plywood panels in a 1U configuration measuring 10 centimeters square. Nine small solar cells will power the satellite, which will orbit at an altitude of 500 – 550 kilometers. The novel spacecraft will carry several amateur radio experiments as well as photo downlinking, including selfies. A goal of the project is to determine how well wood products will perform in space.

During the recent test, a functional model of the WISA Woodsat climbed 19 miles into the sky tethered to a weather balloon. The satellite's camera captured a "selfie" video of the balloon bursting. A parachute deployed to take the nanosatellite back to Earth, where it was recovered intact, lodged in a spruce tree.

The test satellite and a duplicate "spare" version, were manufactured at UPM Plywood's Savonlinna, Finland, factory. The company sells its construction-grade panels under the WISA trademark. The panels were thermo-vacuum dried and processed on a CNC machining center.

The wooden satellite is based on a basic, versatile CubeSat format, Kitsat, which is designed with educational use in mind.

As the sponsor quipped, "WISA Woodsat will go where no wood has gone before. With a mission to gather data on the behavior and durability of plywood over an extended period in the harsh temperatures, vacuum and radiation of space in order to assess the use of wood materials in space structures."

Once in orbit, Woodsat will be able to extend its selfie stick to capture photographs of the wooden box as it hurtles through space at 40,000 kilometers per hour (24,800 miles per hour. This will allow the mission leaders to monitor the impact of the environment on the plywood.

The satellite would downlink its telemetry and images from two cameras using amateur radio frequencies. In addition to testing plywood, the satellite will demonstrate accessible radio amateur satellite communication; host several secondary technology experiments; validate the Kitsat platform in orbit, and popularize space technology.

A team at Kyoto University in Japan is also drawing up plans to put a wooden satellite into space in 2023. --ARRL

FCC REAFFIRMS NEARLY $3 MILLION FINE FOR MARKETING UNAUTHORIZED DRONE TRANSMITTERS

In a *Memorandum Opinion and Order* (*MO&O*) released June 17, the FCC denied a *Petition for Reconsideration* filed by HobbyKing of a $2,861,128 fine for marketing noncompliant RF equipment and for failing to respond to FCC orders in its investigation of the company's practices. In the same step, the FCC enforced its equipment marketing rules. The fine resulted from an FCC investigation initiated by ARRL's January 2017 complaint that the HobbyKing equipment was "blatantly illegal at multiple levels."

"The *Forfeiture Order* is the final chapter of a story that started with a report to the ARRL Board by the EMC Committee in 2017, as a result of the discovery that aerial drone TV transmitting equipment was being imported and marketed without proper FCC authorization under FCC Part 15 rules," said ARRL Electromagnetic Compatibility Committee Chair Kermit Carlson, W9XA.

As spelled out in ARRL's 2017 complaint, the ARRL Laboratory had documented that the operating frequencies of these drone TV transmitters near the 1.3 GHz amateur band were dip-

switch selectable for frequencies internationally assigned for use by Aeronautical Navigation, GPS, GLONASS L1, ATC Mode “S,” as well as to both the interrogation and reply frequencies used for Air Traffic Control Air-Route Surveillance “transponder” radar systems. “Transmissions from these drone TV transmitters would have caused harmful interference to these essential Navigation and ATC Radar systems, presenting a real and dangerous threat to the safety of flight,” Carlson said.

ARRL’s complaint noted that given the channel configuration, these units would not have a legitimate amateur radio use, and that the marketing was directed at drone enthusiasts and not to licensed radio amateurs. “ARRL Laboratory tests did prove that only one of the seven available channels was within the 1.3 GHz amateur band,” Carlson said.

“This is another example of ARRL not only affirmatively acting to protect our Members’ interests, but also acting to protect the safety and security of vital services and the general public,” Carlson said.

HobbyKing had denied that it was marketing its drone transmitters to US customers, but as the ARRL January 2017 complaint pointed out, ARRL Laboratory Manager Ed Hare, W1RFI, was able to purchase two drone transmitters from HobbyKing and have them shipped to a US address for testing in the Lab.

Hare and ARRL Lab staffers Mike Gruber, W1MG, and Bob Allison, WB1GCM, tested the units. Carlson, as well as the Electromagnetic Compatibility Committee he chairs, were credited in the complaint for calling attention to the issue and prompting ARRL’s action.

“The FCC noted that Amateur Radio equipment used to telecommand model craft are limited to 1 W (1,000 mW), but three transmitters included in the FCC investigation operated at significantly higher power levels of 1,500 mW and 2,000 mW,” ARRL said.

HobbyKing had told the FCC that it had no notice of the Commission’s authorization requirements; that the Fifth Amendment relieved HobbyKing of its duty to respond; that the forfeiture amount was inappropriate because its parent company, Indubitably, Inc., lacked the ability to pay to the *Forfeiture Order*; and that the Commission was time-barred from taking action against ABC Fulfillment Services LLC because it was not part of HobbyKing’s business.

“Upon review of HobbyKing’s *Petition for Reconsideration* and the entire record, we find no basis for reconsideration because the petition fails to present new information warranting reconsideration,” the FCC said in the *MO&O*. “Rather, HobbyKing again raises the very same arguments already considered and rejected in the *Forfeiture Order.*”

The fine reaffirms the monetary penalty sought in a June 2018 FCC *Notice of Apparent Liability* (*NAL*). The FCC said it found that dozens of devices marketed by the company transmitted in unauthorized radio frequency bands and, in some cases, operated at excessive power levels.

HobbyKing is the trade name of two US-based companies that include ABC Fulfillment Services LLC and Indubitably, Inc. HobbyKing has a New York office and customer service operations in the US, the FCC noted.

In its earlier *Forfeiture Order*, the FCC said it had made clear that “[d]evices used in the Amateur Radio Service do not require authorization prior to being imported into the United States, but “if such equipment can operate in amateur and non-amateur frequencies, it must be certified prior to marketing and operation.” The FCC investigation found that 65 models of devices marketed by HobbyKing did not have the required FCC certification.

Responding to the FCC, HobbyKing claimed to have ceased marketing the 65 models the FCC identified, but promised only to make “best efforts” not to market other noncompliant RF devices.

“HobbyKing has a continuing obligation to market only radio frequency equipment that is properly authorized,” the FCC said. “We therefore remind HobbyKing that continuing to market noncompliant radio frequency devices could result in further significant forfeitures.” --ARRL

FCC SEEKS COMMENTS IN PROCEEDING INVOLVING 70 AND 5 CENTIMETERS

The FCC is soliciting a second round of comments on whether to authorize commercial space entities to obtain licenses for frequencies used exclusively during space launch activities. The proposals include parts of the 70-centimeter (420 – 430 MHz) and 5-centimeter (5650 – 5925 MHz) bands. The federal government is allocated this spectrum on a primary basis and routinely uses it during space launches, but commercial space companies must obtain short-term Special Temporary Authority (STA) authorizations from the FCC to use it for the same purpose.

The last decade has seen a dramatic increase in commercial space launches. In March, the Federal Aviation Administration (FAA) streamlined its commercial space launch and reentry licensing regulations. In April, the FCC adopted some of its proposals from 2013 and solicited additional comment in a Further Notice on the above proposals in ET Docket No. 13-115, “Allocation of Spectrum for Non-Federal Space Launch Operations.” The proposals would allow private commercial space companies to obtain regular FCC licenses instead of launch-specific STAs in a number of bands, including 420 – 430 MHz and 5650 – 5925 MHz. The federal government, including the US Department of Defense, is the primary user of both bands. Amateur operations are allocated on a secondary basis. The FCC again seeks comment on whether it should give commercial space launch entities access to the same limited space launch uses already employed by the federal government on this spectrum.

Primary federal users heavily employ the 70-centimeter segment for radiolocation applications. Frequencies in the 420 – 430 MHz segment also can be used during space launches to send a flight self-destruct signal if a launch goes off course and poses danger to a populated area. The Commission’s 2013 proposal, repeated in 2021, would permit use restricted to flight termination during launches by commercial space launch companies.

Primary federal users also make use of 5650 – 5925 MHz for radiolocation applications, with channels used during launches for radar tracking. The Commission proposes to permit use by commercial entities similarly limited to use for radar tracking of launch vehicles.

The Commission notes in its *Further Notice of Proposed Rulemaking* that since 2013, commercial entities have become established in space launch operations that were formerly the province of NASA. “To support these commercial space ventures, entities such as the New Mexico Spaceport Authority, the Virginia Commercial Space Flight Authority, and the Houston Airport System have established non-Federal spaceports,” the FCC said, noting that five bands — including 420 – 430 MHz and 5650 – 5925 MHz — are commonly used for communication with and tracking of launch vehicles.

The Commission noted, however, that several commercial space launch providers indicated that they do not use either band for their operations. The FCC said that it has not granted an STA for the 420 – 430 MHz band related to space launches, and in the recent past only one operator obtained STAs to use the 5650-5925 MHz band for a small number of launches.

The Commission concluded that, “Given the limited current use of these bands during space launches [by commercial space entities], we are not convinced that there is need for new allocations for either band.”

Comments are due on or before July 12, 2021; reply comments are due on or before August 9, 2021. --ARRL

3Y0J BOUVET ISLAND DXPEDITION TEAM HASN'T GIVEN UP THE SHIP

The Daily DX has reported that the **3Y0J** DXpedition team is still hoping to have a go at the island in 2023. The DXpedition team had planned to travel to Bouvet via the RV *Braveheart*, owned by Nigel Jolly, K6NRJ.

"Since the cancellation of 3Y0J, we have been working closely with Nigel Jolly to form a new plan, with a new owner of *Braveheart* and a revised payment plan that enables Nigel Jolly to continue managing *Braveheart* and will keep it available for DXpeditions for years to come," said the announcement from DXpedition co-leader Paul Ewing, N6PSE. "We are working out the details of this plan and hope to have some very positive news very soon. We have not given up!"

The Intrepid-DX Group announced earlier this month that it has canceled its long-anticipated DXpedition to Bouvet. Jolly told the DXpedition that the *Braveheart* was being sold and he was canceling its contract for the 3Y0J voyage. --ARRL

SHORTS

ARRL EMAIL ASKING LIFE MEMBERS TO VERIFY THEIR MAILING ADDRESS IS LEGITIMATE – In an effort to keep member records up to date, ARRL emailed Life Members on June 16, asking them to verify their mailing address. Several recipients of the email have called asking if the email was legitimate and from ARRL.

Be assured that it is legitimate and was sent from ARRL.

Thank you to all those who responded. If you need to update your address information, call (860) 594-0200, email **membership@arrl.org**, or respond to the email you received. You may need to cut and paste the web address into your browser.

THIS IS AMAZING! PROBABLY THE LARGEST HEATHKIT COLLECTION IN THE WORLD:

https://www.youtube.com/watch?v=6IfJhZrB_1M

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